BVES

CONSULTATION INPUT

ON THE REVISION OF THE NETWORK CODE RFG 2.0

25 AUGUST 2026

EXECUTIVE SUMMARY

The German Energy Storage Systems Association (BVES e. V.) welcomes the Commission's objective to update the Network Code on Requirements for Grid Connection of Generators (NC RfG 2.0) and, in particular, the explicit inclusion of electricity storage modules. A more harmonised European framework can strengthen system security, support the deployment of storage and enable new configurations combining storage with solar and wind generation. BVES also supports the direction towards grid-forming capabilities as an important solution for an inverter-dominated power system. At the same time, technical ambition and investment security must go hand in hand.

To ensure that the RfG 2.0 adequately reflect the evolving requirements of the European energy system while supporting investment, innovation and system security, BVES considers the following points particularly relevant:

- A more robust grandfathering and a narrow and practical definition of significant modernisation, protecting advanced projects and ensuring that modernisation of existing assets is not discouraged by disproportionate retrofit or compliance obligations.
- Grid-forming requirements should follow demonstrated system need and technology maturity; where they require reserved capacity, SoC management or additional hardware, appropriate remuneration is needed**;** market-based procurement should remain the preferred approach for system services beyond minimum connection requirements.
- Hybrid and co-location projects, including PV+BESS and wind+BESS, need a harmonised EU-wide categorisation based on their actual impact at the connection point.
- For small Type A storage, requirements should remain proportionate, with a simplified regime for lower-kW mass-market systems.
- V2G rules should ensure interoperability without prescribing a specific local control architecture and should allow secure backend-based control.
- Avoid unintended barriers for pumped storage and hydro modernization
- Maintain investment certainty in the wider regulatory framework, including by retaining the existing EUR 0.5/MWh cap on transmission-level generator injection charges under Annex B of the ITC Regulation.
- A sufficiently long transition phase of at least 36 months.

DETAILED RECOMMENDATIONS

The draft correctly recognises the dual role of storage as both consumer and injector of electricity and the need to take storage-specific characteristics into account (Recital 4, p. 4; Art. 6(11), p. 21). Many of the conventional technical capabilities listed for BESS are already familiar from German VDE/FNN requirements. The main concern is therefore not the inclusion of storage as such, but the proportionality, timing and economic consequences of additional or advanced capabilities, especially grid forming, system-support functions, certification and project-specific compliance procedures.

BVES particularly welcomes the objective of European harmonisation. The Regulation itself requires proportionality, non-discrimination, transparency and optimisation between overall efficiency and total cost (Art. 7(3)(a)-(c), p. 21). Those principles should guide the implementation of every storage-related requirement and prevent divergent national add-ons from undermining the single market.

PROTECT ADVANCED PROJECTS THROUGH ROBUST GRANDFATHERING

Relevant draft provisions: Art. 61(3) and Art. 62, p. 99; Recital 32, p. 8.

The current transitional approach is primarily linked to the date on which a module connects to the network. This does not sufficiently reflect the reality of large storage, solar and wind projects, where development, permitting, procurement and grid connection can be separated by several years. Projects that have already made binding investment commitments or reached an advanced stage under the existing regulatory framework should not become subject to materially new technical requirements solely because of connection timing, administrative delays or other factors outside the investor's control.
BVES therefore recommends clear grandfathering criteria based on objective project milestones, such as a binding grid connection agreement, final permitting, binding equipment procurement or another verifiable investment commitment. The decisive principle should be legitimate investment expectation, not only the physical connection date.

CLARIFY AND NARROW SIGNIFICANT MODERNISATION

Relevant draft provisions: Art. 4(2)(a)-(d) and Art. 4(3), pp. 16-17.

The draft allows significant modernisation to be triggered by capacity increases, changes in reactive power capability, changes in frequency stability and active power management capabilities and, for Type C and D, component changes. Most importantly, Art. 4(3) provides that the new requirements apply to the entire power-generating module and not only to the modernised part.

BVES asks for a more targeted approach. Routine maintenance, life-extension measures, compliance upgrades, software updates and functionally equivalent component replacements should not qualify as significant modernisation. Where a genuine significant modernisation takes place, the RfG 2.0 requirements should apply to the modified part or affected capability only, unless the modification materially changes the electrical behaviour of the entire module. Otherwise, necessary investments in reliability, efficiency and asset lifetime could be discouraged.

At the same time, a component-based application of new requirements must not create a new layer of complex certification, labelling or notification obligations for existing assets. Where compliance for an individual modified part cannot be demonstrated clearly and efficiently, the modification should not automatically trigger broader RfG 2.0 requirements. Modernisation and life-extension investments must not become less attractive than new-build projects solely because of additional compliance procedures.

GRID FORMING: AMBITIOUS, NEEDS-BASED AND REMUNERATED WHERE IT BECOMES A SERVICE

Relevant draft provisions: Art. 29(1)-(8), pp. 73-74; Art. 30(3)-(6), p. 75; Art. 1, p. 9.

BVES supports the overall direction towards grid-forming capabilities. Storage is particularly well placed to contribute to future frequency and voltage stability. The roadmap approach in Art. 29 is therefore a

sensible starting point, because it explicitly considers future system needs, distribution-network impacts, protection systems, mitigation measures and network readiness.

Mandatory grid-forming requirements should nevertheless only be introduced where there is a demonstrated system need and where the maturity of the respective asset class, standards, testing procedures and supplier market allow reliable implementation. Requirements should be technology-open and proportionate. Current limits, energy limits and state of charge must be respected in practice, not only in the technical definition.

A clear distinction is also needed between a technical connection capability and the provision of a system service. Where grid-forming operation, synthetic inertia or comparable support requires additional inverter capability, control equipment, reserved current or power, state-of-charge management, operating restrictions or foregone market revenues, this should not become an uncompensated mandatory service. Such capabilities should be integrated into appropriate market-based or regulatory remuneration mechanisms. Existing ancillary-service procurement should not be bypassed through connection requirements.

More generally, BVES considers competitive procurement to be the preferred approach for system-support capabilities that go beyond the minimum technical requirements necessary for secure grid connection. Where different technologies can provide a required system service, transparent and technology-neutral markets with appropriate prequalification and locational signals should be used wherever possible. Mandatory plant-level capabilities must not crowd out such markets or shift system costs to asset owners without corresponding remuneration.

Required functionality should be usable in system operation. The draft itself states that system operators should make appropriate use of facility capabilities in a transparent and non-discriminatory manner (Art. 1, p. 9). It creates unnecessary cost if operators require expensive control interfaces or capabilities without having the processes and systems to use them.

At the same time, the existence of a technical capability should not in itself create an unrestricted right for system operators to intervene in the commercial operation of storage assets. Activation and operational use must follow transparent rules and, where market operation is affected or flexibility is reserved for system purposes, appropriate remuneration mechanisms.

ENABLE HYBRID AND CO-LOCATION PROJECTS

Relevant draft provisions: Art. 5(3)(b)-(e), p. 18.

Hybrid configurations combining storage with renewable generation will become a standard element of the European power system. This concerns not only PV plus BESS but also wind plus BESS and more complex multi-technology sites. The draft aggregates units of the same underlying technology where they form an economic unit at a single connection point, while the capacity of units with different technologies is to be determined by agreement with the system operator or by a national methodology. This leaves too much room for divergent national treatment. BVES recommends an EU-wide default method that reflects the maximum simultaneous import and export capability and the actual electrical impact at the connection point. A simple addition of the nameplate capacities of renewable generation and storage would overstate the system impact in many co-location projects. The rules should also

explicitly cover BESS that provide both commercial services and grid-support functions, rather than treating storage only as an add-on dedicated exclusively to grid forming.

PROPORTIONATE TYPE A REQUIREMENTS AND EU-WIDE COMPLIANCE

Relevant draft provisions: Art. 5(2)(a), p. 17; Recital 12, p. 5; Art. 28, pp. 72-73; Art. 47(2), p. 90; Art. 7(3), p. 21.

BVES supports robust requirements for mass-market equipment where the cumulative system effect justifies them. At the same time, the full Type A regime starts at only 0.8 kW. For a single household-scale storage unit, the individual impact on the wider grid is very limited, while certification, communication and advanced technical requirements can create disproportionate fixed costs.
A practical example from one BVES member illustrates the proportionality issue: in its German utility area, installer-led meter replacement is possible for PV installations up to 7 kWp, whereas larger installations involve the utility. This national practice should not be transferred one-to-one into the European network code, but it demonstrates that operational procedures frequently use thresholds in the several-kW range rather than 0.8 kW. The same member therefore considers requirements below 5 kW to have little practical system value and suggests a threshold around 7 kW for advanced obligations.

BVES asks the Commission to reassess whether all advanced Type A requirements are proportionate from 0.8 kW. A preferable solution would be a simplified, product-based compliance regime for the lower-kW mass-market segment, potentially up to a range of 5-7 kW, while retaining essential frequency, voltage and protection behaviour. Art. 47(2) already points in the right direction by relying on equipment certificates for Type A modules.

Compliance and certification should be harmonised as far as possible at EU level, with mutual recognition of certificates and common test procedures. National implementation should primarily consist of parameter sets within harmonised ranges, not additional testing or full re-certification. This is important for manufacturers, project developers and system operators alike and is consistent with the Regulation's own objective of a level playing field.

KEEP V2G INTERFACES TECHNOLOGY-NEUTRAL AND INTEROPERABLE

Relevant draft provisions: Art. 19(2), p. 34; Annex III, points 1, 1.1 and 1.2, p. 4; Annex III, Table 2, p. 10.

Art. 19(2) requires EV1 and EV2 V2G EV/EVSE to have a data exchange interface to modulate active power input and output "without undue delay". This wording should not be interpreted as requiring a specific local interface or a country-specific system-operator interface. Secure control via manufacturer, EV or EVSE backends must remain possible where it fulfils the required performance and cybersecurity conditions. The response-time requirement should distinguish between (a) the communication path between the system operator or service provider and the asset and (b) the reaction time of the asset after the instruction has been received. The requirement for an immediate response should primarily address the latter. It should not be used to prescribe a particular national communication architecture, for example a mandatory local connection to a specific metering system.

Annex III is a useful step towards V2G interoperability, but the requirement for country-specific EVSE certificates should not lead to repeated certification of essentially identical hardware and software. BVES

recommends one EU-wide core certificate, complemented where necessary by country-specific parameter datasets. A certified V2G product should be able to operate across the Union without a new full conformity assessment in every Member State.

PROTECT EXISTING ASSETS AND PROVIDE REALISTIC TRANSITION PERIODS

Relevant draft provisions: Art. 45(1)-(6) and Art. 46, pp. 88-89; Art. 62, p. 99; Annex III sunset clause, p. 99.

BVES welcomes that the draft does not impose a blanket retrofit obligation on existing assets. Any later extension of individual requirements to existing modules should remain exceptional and should require a clearly positive cost-benefit assessment. It is particularly important that the assessment includes direct retrofit cost, operational and maintenance cost and loss of opportunity, as already foreseen in Art. 46. Remaining asset lifetime, financing effects and lost market revenues should also be reflected. Where a retrofit creates a material economic burden for a system-wide benefit, appropriate compensation should be considered.

The general application of the new requirements after 24 months is, however, too short for a framework that still requires national parameter setting, compliance schemes, certification procedures and implementation guidance. BVES recommends that new requirements apply no earlier than 36 months after entry into force. In addition, market participants should have at least 12 months between the final publication of all material national implementation parameters and the date on which compliance becomes mandatory.

For V2G, the transition from the temporary Annex III to future harmonised standards must avoid a regulatory gap. Certificates issued under Annex III should remain valid for products already placed on the market or certified during the transitional period, unless a safety-relevant modification requires reassessment.

MAINTAIN INVESTMENT CERTAINTY BEYOND GRID CONNECTION REQUIREMENTS

Relevant provision: Annex B to Commission Regulation (EU) No 838/2010 (ITC Regulation)

In the RfG 2.0 stakeholder process, the possible removal of Annex B of the ITC Regulation has been discussed. BVES supports retaining the existing EUR 0.5/MWh cap on transmission-level generator injection charges. Removing it could expose projects to additional and divergent charges across Member States, increasing regulatory uncertainty and investment costs. The cap should therefore be preserved to maintain predictable investment conditions.

AVOID UNINTENDED BARRIERS FOR PUMPED STORAGE AND HYDRO MODERNISATION

Relevant draft provisions: Art. 6(7)(e), p. 20; Art. 15(10), pp. 28-29.

The draft exempts variable-speed pump-storage modules in pumping mode from Art. 15(10). BVES members point out that significant efficiency-oriented modernisations or capacity extensions of conventional hydro plants can likewise become technically or economically unviable if they trigger response requirements that the underlying machine concept cannot reasonably fulfil. Comparable

technical constraints should therefore receive comparable treatment. The exemption logic should be reviewed for conventional hydro where the physical justification is equivalent, so that investments improving efficiency and renewable generation are not discouraged.

BVES is available to support the Commission, ACER, ENTSO-E and the EU DSO Entity in the further development of storage-specific implementation guidance, certification and proportionate technical requirements.